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Longitudinal Study of Religious and Spiritual Transformation in Adolescents Attending Young Life Summer Camp: Assessing the Epistemic, Intrapsychic, and Moral Sociability Functions of Conversion

Sarah A. Schnitker, Thomas J. Felke,
and Justin L. Barrett
Fuller Theological Seminary

Robert A. Emmons
University of California, Davis

The psychological study of conversion has long been concerned with the functionality of conversion, or the ability of religious and spiritual transformation to foster positive change in people's lives. The epistemic, intrapsychic, and moral sociability functions of transformation were tested in a sample of adolescents attending religious summer camp. Participants completed measures of epistemic, intrapsychic, and moral sociability functioning before and one year following camp, which provided pre- and post-transformation assessment of functioning. Participants also completed a short survey immediately following camp to assess if they had a transformation at camp. Adolescents attending camp reported a high incidence (33%) of a religious transformation at camp. Transformation predicted positive change in moral sociability and intrapsychic functioning the year following camp. An increase in epistemic functioning was not predicted by religious or spiritual transformation, but participation in Young Life activities significantly predicted an increase in epistemic functioning.

Keywords: conversion, spiritual transformation, well-being, moral development, prosocial

The psychology of religious conversion, religious transformation, and spiritual transformation has been a topic of great interest since the inception of psychology of religion as a field. William James discussed conversion at length in his *Varieties of Religious Experiences* (1902). He conceptualized conversion as a movement from self-disintegration to wholeness as well as the movement of religious ideas from the periphery of people's consciousness to the more central "habitual center of energy" (1902, p. 193). Edwin Starbuck focused on the processes of conversion and spiritual transformation in adolescents. He observed close parallels between conversion in evangelical youth and the normal developmental processes of identity and spiritual formation in adolescence (Starbuck, 1897, 1901). Conversion was distinctive in that it shortened the typical period of brooding or "storm and stress" (Starbuck, 1901, p. 214).

Present-day researchers have adopted Starbuck's focus on adolescence as an important developmental period in which to study conversion and spiritual transformation (Granqvist & Hagekull, 2003; Smith, Denton, Faris, & Regnerus, 2002). Regnerus and Uecker (2006) found that religious transformation is relatively more common in adolescence, and Hood, Spilka, Hunsberger, and

Gorsuch (1996) maintain that religious changes and conversion peak around 15–16 years of age. In addition, contemporary researchers have embraced James and Starbuck's functionalist approach to the study of spiritual transformation, religious transformation, and conversion; research commonly examines the function or utility of conversion in fostering individual or societal well-being (e.g., Cole, Hopkins, Tisak, Steel, & Carr, 2008; Paloutzian, Richardson, & Rambo, 1999; Zinnbauer & Pargament, 1998).

Functions of Religious and Spiritual Transformation

Leffel (2011) proposes that three types of functionalism may be applied to the study of religion: epistemic, intrapsychic, and social functionalism (see also Hood, Hill, & Spilka, 2009). Epistemic functionalism refers to the ability of religion to provide people with existential meaning and ways of relating to the sacred. Intrapsychic functionalism refers to the ability of religion to promote intrapersonal well-being (e.g., positive mood, self-esteem, physical health). Social functionalism refers to the ability of religion to bind people together in cooperative groups and strengthen communities through a shared moral vision. These general functions of religion may be applied more specifically to the functions of religious and spiritual transformation.

Epistemic Functions of Transformation

The epistemic functions of religion have received much attention in the research literature. Many psychological definitions of religion and spirituality touch upon people's existential and epistemic needs. For example, Hill et al. (2000) define the search for the sacred as a core component of spirituality. Similarly, spiritu-

Sarah A. Schnitker, Thomas J. Felke, and Justin L. Barrett, School of Psychology, Fuller Theological Seminary; and Robert A. Emmons, University of California, Davis.

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Correspondence concerning this article should be addressed to Sarah A. Schnitker, School of Psychology, Fuller Theological Seminary, Pasadena, CA 91101. E-mail: sschnitker@fuller.edu

ality has been conceptualized in terms of goals or strivings, and religion has been thought to provide a foundation for the most important, overarching goals of a person's life, referred to as "ultimate concerns" (Emmons, 1999). Baumeister maintains that religion provides a uniquely rich narrative in which a person may find a sense of purpose and meaning that "can interpret each life or each event in a context that runs from the beginning of time to future eternity" (1991, p. 203).

Several studies have demonstrated the epistemic functions of conversion. Paloutzian (1981) found that converts reported greater purpose in life than nonconverts in a cross-sectional study. Moreover, this sense of purpose varied by the time passed since conversion. Purpose was very high for participants who had converted within the past week, was no different from nonconverts for participants who had converted a month previous, and was moderately high for participants who had converted six months previous. Ironson and Kremer (2009) found that HIV patients who experienced a spiritual transformation had higher meaning in life and lower fear of death than those who did not. Kilbourne and Richardson (1984) found that converts to new religious movements looked similar to people participating in psychotherapy; people in both groups reported a new sense of life's meaning and positive new identity.

Leffel (2011) argues that a meaning system approach to understanding spiritual transformation dominates the theoretical literature and gives the impression that the primary function of transformation is epistemic. He proposes that multiple functions of transformation be empirically tested to increase our understanding of the phenomenon. Thus, we test not only for the epistemic functions of religion, but also for the intrapsychic and social functions.

Intrapsychic Functions of Transformation

The intrapsychic benefits of religion are numerous and well documented. Religion and spirituality have been positively correlated with a host of well-being indicators ranging from increased happiness, self-esteem, and optimism (Ellison & Fan, 2008) to increased life expectancy (Hummer, Rogers, Nam, & Ellison, 1999), reduced incidence of suicide (Stack, 1983), and lower substance abuse (Wallace & Forman, 1998). In addition, specific religious practices, such as prayer and meditation, are consistently associated with higher well-being (Whittington & Scher, 2010), and daily spiritual experiences predict day-to-day well-being (Kashdan & Nezlek, 2012).

Of the three functionalist accounts of conversion and transformation, the intrapsychic functions have garnered the most empirical support thus far. The majority of research on the intrapsychic functions of religious transformation examines the role of attachment system dynamics in transformation. Attachment theorists hold that many people form attachment relationships with God that can correspond with or compensate for their childhood attachment to caregivers (Kirkpatrick & Shaver, 1992). The correspondence hypothesis predicts that people with secure parental attachments will have gradual transformations and experience steadily increasing commitment to their childhood faith, and the compensation hypothesis says that people with insecure parental attachments will seek out a compensatory relationship with God, which begins with a dramatic transformation preceded by emotional turmoil. Both

hypotheses have received considerable empirical support from cross-sectional (e.g., Granqvist, Ivarsson, Broberg, & Hagekull, 2007; Granqvist & Kirkpatrick, 2004), experimental (e.g., Birgegard & Granqvist, 2004; Granqvist, Ljungdahl, & Dickie, 2007), and longitudinal studies (e.g., Granqvist & Hagekull, 2003; Kirkpatrick, 1998; Schnitker, Porter, Emmons, & Barrett, 2012). However, these studies test how attachment predicts conversion rather than how conversion affects the attachment system.

Less well documented are the effects of religious and spiritual transformation on other intrapsychic variables. Does transformation increase life satisfaction, decrease depression, or increase self-esteem? Zinnbauer and Pargament (1998) found that converts reported higher perceptions of preconversion stress and a higher sense of postconversion competency, adequacy, and self-esteem compared to nonconverts. Robbins and Anthony (1982) summarized a variety of positive outcomes documented in converts to new religious groups such as renewed vocational interest, lower neurotic distress, self-actualization, decrease in psychosomatic symptoms, termination of illicit drug use, and decrease in anomie and moral confusion. Ironson and Kremer (2009) found that HIV patients who experienced a spiritual transformation had higher medication adherence and increased optimism. These patients also had better treatment success 3–5 years later (lower viral load and higher CD-4 count), and survival was 5.35 times more likely for them.

Social Functions of Transformation

Research on the social functions of religion has grown exponentially in the last decade, mainly due to studies inspired by evolutionary (Boyer, 2001) and game theory (Wright, 2009) analyses of religion. Graham and Haidt (2010) argue that religions are intrinsically connected to morality and should be studied as systems that "bind people together into cooperative communities organized around deities" (p.140). Shariff and Norenzayan (2007) found that priming religion increases pro-social behavior, and Randolph-Seng and Nielsen (2007) found that priming religious representations increases honesty. Several teams of researchers have demonstrated the link between religion and increased gratitude, a virtue vital to social functioning and pro-social behavior (e.g., McCullough, Emmons, & Tsang, 2002; Watkins, Woodward, Stone, & Kolts, 2003), and Lambert, Fincham, Braithwaite, Graham, and Beach (2009) found that prayer increases gratitude in both longitudinal and experimental studies. Finally, the virtue of patience, also important to interpersonal relationships, has been related to spirituality and religion (Schnitker & Emmons, 2007; Schnitker, 2012).

Leffel (2011) maintains that a primary function of transformation is to increase moral sociability, defined as "an emergent capacity for moral relatedness, whereby one person acts to facilitate the good of another, and where that good is understood as the other's unrealized potential" (p. 40). Although numerous studies are accumulating on the social functions of religion, no studies to date have examined the moral sociability functions of conversion. Does having a religious or spiritual transformation increase pro-social engagement? Does a transformation lead to an increase in virtues necessary for creating a moral society? We hope to provide initial evidence in answering these questions.

Assessing Actual Change to Test the Functions of Transformation

With the exception of the attachment literature, nearly all of the studies on the epistemic and intrapsychic functions of transformation have utilized cross-sectional research designs and/or relied upon retrospective accounts of pretransformation functioning. The use of retrospective accounts of pretransformation functioning is highly problematic considering the vast literature on memory reconstruction (Paloutzian, Richardson, & Rambo, 1999). Religious converts may reconstruct their memories to fit a “conversion script” made available to them in their religious context. Rather than measuring actual changes in indicators of functioning, cross-sectional studies may actually be measuring the ways people reconstruct their memory to fit social scripts. The utilization of longitudinal designs with pre- and posttransformation measurement can help to disentangle “real” change from memory reconstruction to determine the functions of transformation.¹

Whereas few studies have used longitudinal methods to examine the epistemic and intrapsychic functions of religious or spiritual transformation, no studies of any kind have tested social functionalist accounts. There is no evidence that people who report a religious or spiritual transformation increase in moral sociability afterward. It is imperative that researchers examine the influence of religious and spiritual change on moral sociability to provide information pertinent to evolutionary, social functionalist accounts of religion.

Defining Transformation

Transformation is a complex phenomenon, and attention to definitional issues is necessary in order to fully investigate its epistemic, intrapsychic, and moral sociability functions. Rambo (1993) maintains that conversion is an unfolding process that takes place in a dynamic field. Although the archetypal conversion in U.S. Protestantism is often characterized by a sudden, mystical, and dramatic experience, many “real-life” conversions take place over a longer period of time and are contextually embedded in a matrix of cultural, social, relational, religious, and spiritual influences. We adopt Rambo’s broad conceptualization of conversion. However, we choose to use the terms “religious” and “spiritual transformation” from this point forward because of the connotations so heavily loaded on the term conversion. By adopting the nomenclature of transformation, rather than conversion, we hope to indicate the broader understanding of the psychological phenomena we seek to study.

Considering the vast diversity of transformation types and motifs documented in previous research (Lofland & Skonovd, 1981; Rambo, 1993), Paloutzian (2005) defined a religious/spiritual transformation as a change in religiousness/spirituality that (a) is separable from other learning and developmental processes and (b) is distinctive, meaning that converts can describe a qualitative difference in their religious and spiritual lives pre- and post-transformation. This definition is helpful in the conceptualization of transformation, but challenges arise when researchers seek to construct operational definitions of transformation.

Is Increased Functioning After Transformation the Result of Increased Religiousness, Spirituality, or Social Capital?

Previous studies on the functions of transformation have typically assessed spiritual changes (e.g., Ironson & Kremer, 2009) or religious changes (e.g., Robbins & Anthony, 1982), but they rarely differentiate between the two or assess both. Researchers have long debated the similarities and differences between religiousness and spirituality, and resolution of this topic has yet to be established. We adopt Benson, Roehlkepartain, and Rude’s (2003) stance that the two are distinct but overlapping domains. Most researchers characterize religiousness as engagement with an organized faith tradition that facilitates closeness to the transcendent (Koenig, McCullough, & Larson, 2001), whereas spirituality is more often typified by private actions and emotions in relation to a transcendent entity (King & Boyatzis, 2004). Structural equation modeling of adolescent data supports the view of religion and spirituality as separate but correlated latent constructs (Dowling, Gestsdottir, Anderson, von Eye, & Lerner, 2003). Thus, studies examining the functions of transformation should assess both spiritual and religious change to test if both predict increases in functioning.

An alternative explanation important to consider is that increased functioning resulting from transformation is due to amplified social engagement rather than changes in a person’s religiousness or spirituality. Upon experiencing a transformation, people often increase their involvement in religious organizations. Previous research has demonstrated the ability of religious organizations to serve as conduits of social capital, defined as the communal relationships that empower people to pursue goals, explore safely, and internalize social norms (Wagener, Furrow, King, Leffert, & Benson, 2003). Studies have linked social capital to higher moral sociability (King & Furrow, 2008) as well as higher epistemic and intrapsychic functioning (McNeal, 1999; Pinkerton & Dolan, 2007). However, religious organizations are not the only conduits of social capital. For adolescents, research has shown that a variety of secular youth-serving organizations (e.g., 4-H, athletic teams) increase social capital (Larson, 2000; Lerner, von Eye, Lerner, & Lewin-Bizan, 2009). It may be that increased functioning in adolescents who report transformations can be ascribed to their increased engagement in a youth-serving organization rather than a consequence of religious or spiritual change.

The Present Study

Given these gaps in the literature, we sought to collect longitudinal data on transformation with pre- and post- transformation measurement of epistemic, intrapsychic, and moral sociability functions. We collected data from adolescents attending religious summer camps run by Young Life, an evangelistic Christian group. The Young Life organization reports that youth regularly experience religious transformations at its summer camps. This presented a unique data collection opportunity with adolescents

¹ Longitudinal studies cannot completely escape the confounding effects of memory reconstruction as participants may contrast the present self with the reconstructed pre-transformation self when answering questions about present functioning.

who were likely to report religious transformation in the near future but who had not yet had the transformation. We assessed participants before they attended summer camp for pretransformation scores and then assessed them immediately after and 1-year following camp for posttest scores.

We hypothesized that (1) *experiencing a transformation predicts an increase in (a) epistemic functioning, (b) intrapsychic functioning, and (c) moral sociability functioning from before camp to one year later*. In other words, we anticipated that adolescents who experienced a transformation at summer camp would demonstrate increased life purpose, psychological well-being, and prosocial tendencies a year later. In addition, we hypothesized that (2) *participation in Young Life activities predicts increased epistemic, intrapsychic, and moral sociability functioning* because youth build social capital through their participation in a youth-serving organization. However, we expected that religious and spiritual transformation would predict unique variance in increased functioning even after accounting for the effects of increased social capital. Thus, we add the addendum to Hypothesis 1 that (1d) *transformation predicts an increase in functioning even after controlling for Young Life participation*.

Method

Participants and Procedure

Young Life organization. Participants were Western European adolescents attending a Young Life summer camp. Young Life is an evangelistic Christian youth organization that seeks to introduce adolescents to the Christian faith. Active in all 50 U.S. states and in 46 countries, Young Life recounts that more than 215,000 adolescents attend their summer camps each year. Camp activities include traditional fun, group-building pursuits (e.g., high ropes course, games, horseback riding, para-sailing, obstacle course), but they also include large group “club” events, which feature evangelistic messages focused on the life and teachings of Jesus in addition to singing, skits, and silly games. These “club” messages are meant to be theologically simple and are tailored to be relevant to teens. Campers also participate in small group “cabin time,” where they discuss the religious teachings with a focus on personal application. At the end of camp, adolescents are invited to make a commitment or recommitment to Jesus and the Christian faith.

Participants. Data was originally collected from 137 Western European adolescents attending Young Life summer camp (M age = 15.9, SD age = 1.8), but only 45 participants completed measures at all three time points (M age = 15.8, SD age = 1.1). There were 75 (54.7%) females and 60 (43.8%) males in the sample at Time 1, and there were 30 (66.7%) females and 14 (31.1%) males who completed measures at all three time points. The sample was predominantly Caucasian (82.9%), and also included adolescents who indicated their ethnicity was Hispanic (2.1%), African (2.1%), and Other (5.5%). We examined if any of our study variables were related to subject attrition. There were no significant differences ($p < .05$) between participants who completed the study and those who dropped out on scores of epistemic functioning, intrapsychic functioning, social functioning, spiritual transcendence, or religious commitment at Time 1.

Procedure. Young Life groups in Europe were contacted the spring of 2007; researchers invited all teenagers planning to attend camp that summer to participate. After child assent and parental consent were obtained, participants completed the full set of questionnaires before camp (ranging from 1 day to 2 weeks before camp; Time 1), a shorter questionnaire immediately following camp (completed during travel home, primarily to assess if participants experienced a transformation at camp; Time 2), and the full set of questionnaires again one year after summer camp (completed 12–14 months after camp; Time 3). Thus, one to three weeks elapsed between Time 1 and Time 2 measurement and 12 to 14 months elapsed between Time 2 and Time 3 measurement. Participants were remunerated the equivalent of US\$50 for their participation across all three time points (\$20 for Time 1, \$10 for Time 2, and \$20 for Time 3).

Measures

Religious and spiritual transformation measures. Although we adopted Paloutzian’s (2005) definition of religious/spiritual transformation as a change in religiousness/spirituality that (a) is separable and (b) is distinctive, creating an operational definition for transformation in our sample was quite complicated as we sought to avoid retrospective biases. Thus, we adopted two tactics in our attempt to index transformation.

Participant self-report of transformation. Our first approach was to simply ask participants if they made “a decision to commit your life to God for the first time at camp?” or if they made “a decision to recommit your life to God at camp?” directly following camp (Time 2). These items reflect the language Young Life uses to demarcate transformation (Shelburne & Cox, 2005), and this method operationally defines transformation as self-reported transformation immediately following a religious experience at camp.

The benefits of this approach were that it respected the religious and cultural expertise of the participants and was free from retrospective bias in reporting. Moreover, it highlighted the distinctiveness of the transformation experience as it captured a transformation “event.” However, there were several limitations to this method. It may have been difficult for participants to evaluate if they experienced a *genuine* change in their lives or if they were just caught up in the emotional milieu of camp. Immediately after camp, cognitive and emotional changes were highly salient, and participants may have reported that they experienced a quantum change. In contrast, if participants were asked about their experiences at camp a year later, they may have decided that the experiences were not authentic transformations as they reflected upon changes (or lack thereof) in their actual behaviors and daily lives.

Change in religiousness and spirituality. Thus, we adopted a second technique to assess transformation. Rather than asking participants to report if they experienced a transformation at camp, we quantified their transformation as change in spirituality and religiousness from before camp (Time 1) to one year following camp (Time 3). This approach, then, operationally defines transformation as change in spirituality from before camp to a year later. The benefits of this approach were that it indexed actual change and distinguished adolescents who had a *genuine* transformation at camp from those who had a one-time “mountaintop” experience that led to no longer-lasting change. The limitations of

this approach were that it did not directly assess if changes were separable and distinctive from the normative trajectory of spiritual development. Two measures were used to quantify change in religiousness and spirituality.

Change in religious commitment. The 10-item Religious Commitment Inventory (Worthington et al., 2003) was administered to participants at Time 1 (before attending camp) and Time 3 (one year after camp). It assessed the strength of people's ties to their religion using a 5-point Likert scale (1 = *Not at all true of me* to 5 = *Totally true of me*) to rate the extent to which items (e.g., "religious beliefs influence all my dealings in life") described them. A religious change score was computed by subtracting participants' Time 1 scores from their Time 3 scores.

Change in spiritual transcendence. The 8-item Spiritual Transcendence Index (STI; Seidlitz, Abernethy, Duberstein, Evinger, Chang, & Lewis, 2002) assessed the meaning and quality of a participant's spirituality using a 6-point Likert scale (1 = *Strongly disagree* to 6 = *Strongly agree*) on items such as, "Maintaining my spirituality is a priority for me." Participants completed the STI at Time 1 (before attending camp) and Time 3 (one year after camp). A spiritual transcendence change score was computed by subtracting participants' Time 1 scores from their Time 3 scores.

Young Life participation. A Young Life participation score was created by summing three indices of participation assessed at the 1-year follow-up (Time 3). Participants were asked how often they attended Young Life events throughout the month, the frequency with which they met with a Young Life leader, and how many close friends attended Young Life with them. Responses to these categorical items were dichotomized as low (0) versus high (1). Participants scored a one on attendance if they attended at least once a month. Participants scored a one on meeting with a leader if they met with the leader at least once. Finally, participants scored a zero on close friends if they put that they had no close friends involved with Young Life up through a small number; they scored a one on close friends if they put that many of their friends were involved in Young Life. Thus, Young Life participation scores ranged from 0 to 3.

Indicators of epistemic, intrapsychic, and moral sociability functioning. Levels of functioning in the three domains (epistemic, intrapsychic, and moral sociability) were indexed by assessing participants on a number of constructs relevant to each domain hypothesized to change as a result of transformation. Life framework and the presence of meaning in life were indicators of epistemic functioning; life satisfaction, depressive symptoms, self-esteem, loneliness, and vitality were indicators of intrapsychic functioning; and responsible attitudes, responsible performance, gratitude, and patience were indicators of moral sociability.²

Mean scores on these 11 variables at the first measurement occasion (Time 1) were factor analyzed (EFA: Maximum Likelihood extraction; Promax rotation), and the scree plot supported a three-factor solution. The scales loaded as hypothesized on intrapsychic, moral sociability, and epistemic factors, which accounted for 38%, 15%, and 8% of the variance, respectively. Table 1 displays the factor loadings from the factor analysis; factors were moderately correlated. To minimize family wise error, hypotheses were tested utilizing the three-factor scores computed for each participant based on the factor analysis (Regression method). Table 1 displays the factor score coefficient matrix used to compute factor scores. Factor scores were computed for Time 1 (precamp)

and Time 3 (1-year follow-up). Whereas factor loadings are correlations between the variable and the factor, the factor scores coefficient matrix gives the coefficients by which to multiply standardized scores of each variable to compute factor scores.

Epistemic function indicators. Two subscales from the 28-item Life Regard Index (Debats, 1990) measured how people feel about the meaningfulness of their lives. Items were rated on a 3-point Likert scale (1 = *do not agree*, 2 = *no opinion*, 3 = *agree*). Items such as "I have a philosophy of life that really gives my living significance" or "There honestly isn't anything that I totally want to do" assessed the participant's level of meaning in life. Items such as "I get so excited by what I'm doing that I find new stores of energy I didn't know that I had," and "I don't really value what I'm doing" measured the participant's life fulfillment.

Intrapsychic function indicators.

Satisfaction with Life Scale. The 5-item Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) measured satisfaction with one's life (e.g., "In most ways my life is close to my ideal") using a 7-point Likert scale (1 = *Strongly disagree* to 7 = *Strongly agree*).

Center for Epidemiological Studies-Depression Inventory (CES-D). Participants completed Radloff's (1977) 20-item CES-D by rating how often they exhibited depressive symptoms during the week prior to completing the questionnaire. Items were rated on a Likert scale (1 = *Rarely or none of the time* to 4 = *Most or all of the time*), and sample items included "I thought my life had been a failure" and "I could not get "going."

Rosenberg Self-Esteem Inventory. The 10-item Rosenberg Self-Esteem Inventory (Rosenberg, 1965) gathered information on self-esteem (e.g., "I take a positive attitude toward myself") using a 4-point Likert scale (0 = *Strongly disagree* to 4 = *Strongly agree*).

R-UCLA Loneliness Scale. The 3-item R-UCLA Loneliness Scale (Hughes, Waite, Hawkey, & Cacioppo, 2004) assessed loneliness (e.g., "How often do you feel isolated from others?") with a 3-point Likert scale (1 = *Hardly ever*, 2 = *Some of the time*, and 3 = *Often*).

Vitality. Vitality, the subjective feeling of being alive and alert, was measured by Ryan and Frederick's (1997) scale. The measure contained seven items, such as "I feel alive and vital" and "I have energy and spirit," rated on a 7-point Likert scale (1 = *Not at all* to 7 = *Very true*).

Moral sociability function indicators.

Patience. The self-evaluation of patience factor from the Patience Scale-10 (Schnitker & Emmons, 2007) was employed to measure participant self-assessment of patience and patient behaviors. The six items of the subscale (e.g., "Most people would say I'm a patient person") were rated on a 7-point Likert scale (1 = *Very much unlike me* to 7 = *Very much like me*).

² Cronbach's alpha for all of these measures exceeded .70. Participants originally completed an abbreviated version of Emmons' (1999) Strivings Assessment Scale, but completing the full strivings measure was too taxing for participants, so it was not administered to participants after the first measurement occasion. Synder et al.'s (1991) Hope Scale and Peterson and Seligman's (2004) Self-Regulation Sub-Scale of the Values in Action Scale for Youth were also administered but are not reported due to conceptual overlap and low reliability, respectively.

Table 1
Factor Loadings and Factor Score Coefficient Matrix for EFA of Time 1 Intrapyschic, Moral Sociability, and Epistemic Function Indicators (Maximum Likelihood Extraction, Promax Rotation, Regression Factor Scores)

Study variable	Factor loadings ^a			Factor score coefficient matrix		
	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
Intrapyschic function indicators						
Life satisfaction	.68	.38	.43	.22	.08	-.02
Vitality	.66	.29	.45	.20	.03	.01
Self-esteem	.64	.14	.49	.18	-.04	.06
Loneliness	-.52	-.09	-.36	-.12	.03	-.02
Depression	-.50	-.12	-.25	-.14	.01	.03
Moral sociability function indicators						
Patience	.21	.76	.13	.04	.44	-.11
Responsible attitudes	.18	.70	.40	-.10	.32	.17
Gratitude	.58	.61	.39	.18	.22	-.03
Responsible performance	.31	.52	.48	-.02	.14	.14
Epistemic function indicators						
Fulfilling purpose	.72	.34	.84	.23	.00	.63
Life framework	.53	.28	.62	.07	.01	.18

^a The three factors are correlated: $r_{1,2} = .36$, $r_{1,3} = .58$, $r_{2,3} = .35$.

Gratitude. Participants rated six items from the Gratitude Questionnaire-6 (McCullough, Emmons, & Tsang, 2002; e.g., “If I had to list everything that I feel grateful for, it would be a very long list”) on a 7-point Likert scale (1 = *Strongly disagree* to 7 = *Strongly agree*).

Responsible attitudes and performance. Twelve items from Conrad and Hedin’s (1981) Social and Personal Responsibility Scale (SPRS) were used to assess Attitudes Toward Being Responsible (e.g., “Some teenagers feel bad when they let people down who depend on them, but other teenagers don’t let it bother them that much”) and Performance of Responsible Acts (e.g., “Some teenagers carefully prepare for community and school assignments, but other teenagers usually don’t prepare that much”) subscales. To avoid social desirability biases, a “structured alternative format” was utilized whereby two opposing statements were given for the participant to choose between and then indicate if the chosen statement is “really true for me” or “sort of true for me.” Items were scored so that high endorsement of the responsible option received a 4 and high endorsement of the irresponsible option received a 1. Thus, higher scores indicated more responsible attitudes/performance on a scale from 1–4.

Results

Incidence of Religious and Spiritual Transformation

Of the 134 participants who completed the postcamp survey at Time 2, two (1.5%) reported a new commitment to God and 42 (31%) reported recommitting their lives to God. Of the 45 participants who completed both Time 1 and Time 3 measures, none reported a new commitment to God at Time 2 and 10 (22%) reported a recommitment to God at Time 2.³ Thus, only incidence of recommitment to God (compared to no commitment) was analyzed.

Examination of religious and spiritual change scores further illuminates the incidence of transformation by describing intra-

individual change in religiousness and spirituality. Of the 45 participants who completed both precamp (Time 1) and 1-year follow up (Time 3) surveys, nine participants (20%) increased at least one half a standard deviation from precamp to the 1-year follow-up, and 11 participants (24%) decreased at least one half a standard deviation over the same period of time. Twenty-five participants (56%) did not shift one half a standard deviation above or below their precamp religious commitment at the 1-year follow-up. On spiritual transcendence, six participants (13%) increased at least one half a standard deviation from precamp to the 1-year follow-up, and 12 participants (27%) decreased one half a standard deviation. Twenty-seven participants (60%) did not move above or below their precamp scores by one half a standard deviation. These statistics do not reflect calculations of statistical significance but are provided to describe religious and spiritual change in the sample in understandable terms.

Descriptive Statistics and General Longitudinal Trends

Means and standard deviations for the study variables at Time 1 for all participants who began the study and at Time 1 and Time 3 for the 45 participants who completed the study are displayed in Table 2. There was a significant mean decrease in spiritual transcendence from Time 1 to Time 3, which replicates previous data (e.g., Denton, Pearce, & Smith, 2008) that spirituality decreases over time during adolescence. There was no significant change for religious commitment.

To establish a general understanding of fluctuations in the study variables (to contrast against changes due to religious transforma-

³ Responses to the Time 3 survey 12 months following camp indicated that a fair portion of students were “not sure” about making a commitment to God at camp: 27% were unsure if they had committed for the first time, and 22% were not sure if they had recommitted. This supports the weaknesses of self-reported transformation outlined in our introductory discussion on the challenges of measuring transformation.

Table 2
Descriptives of Study Variables and Testing for Mean Differences Between Time 1 and Time 3

Study variable	All participants at Time 1		Participants who completed both Time 1 and Time 3 surveys				Repeated measures ANOVA for Time 1 and Time 3 scores		
	Time 1 (<i>N</i> = 137)		Time 1 (<i>N</i> = 45)		Time 3 (<i>N</i> = 45)		<i>F</i> (44)	<i>p</i>	η_p^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Religion and Spirituality Measures									
Religious Commitment Inventory ^a	2.53	1.01	2.55	1.01	2.49	0.98	0.35	0.56	0.01
Spiritual Transcendence Index ^b	3.77	1.37	3.82	1.35	3.47	1.36	5.17	0.03	0.11
Functioning Factors									
Intrapsychic Functioning	3.44	0.65	3.33	0.54	2.98	0.36	20.88	<.01	0.33
Moral Sociability Functioning	4.87	0.59	4.85	0.51	4.97	0.53	3.96	0.05 ^c	0.08
Epistemic Functioning	2.33	0.34	2.32	0.33	2.31	0.36	0.05	0.82	0.00

^a *M* = -.06, *SD* = .68 for Religious Commitment Change scores. ^b *M* = -.35, *SD* = 1.02 for Spiritual Transcendence Change scores. ^c *p* = .053, so the difference is not significant.

tion), mean differences in the variables between Time 1 and Time 3 were tested for all participants who completed the study (both those who did and did not have a transformation). Intrapsychic functioning significantly decreased across the year duration of the study, and there was a marginally significant increase in moral sociability functioning for the participants.

Change in Functioning as a Result of Religious and Spiritual Transformation and Young Life Participation

We tested whether transformation predicted an increase in functioning from before camp (Time 1) to one year after camp (Time 3). A correlation matrix of the functioning variables and indices of transformation displayed in Table 3.

Our analytic approach was to run nine hierarchical regressions. Three hierarchical regressions were run for each of the Time 3 functioning variables (i.e., predicting Time 3 intrapsychic, epistemic, and moral sociability functioning). In Step 1 of each regression, Time 1 scores of the functioning variable were entered (e.g., Time 1 intrapsychic functioning in the regression predicting Time 3 intrapsychic functioning). In Step 2 of each regression, Young Life participation was entered in the equation to test if transfor-

mation predicted increased functioning even after controlling for participation in a youth organization. In Step 3 of each regression, one of the three indices of religious/spiritual transformation (dummy-coded self-reported recommitment, change in religious commitment, or change in spiritual transcendence) was entered. We chose to run separate regressions for the different modalities of assessing transformation because of multicollinearity concerns. Results are displayed in Table 4.

Religious and spiritual transformation (i.e., religious commitment change and spiritual transcendence change) each predicted an increase in moral sociability functioning across the year-long course of the study after controlling for the effect of Young Life participation, which was nonsignificant. Participant self-reported recommitment to God did not predict a change in moral sociability functioning.

Participant self-reported recommitment to God did, however, predict an increase in intrapsychic functioning even after controlling for Young Life participation, which was nonsignificant. Religious and spiritual transformation, assessed as religious commitment change and spiritual transcendence change, were marginally significant predictors of an increase in intrapsychic functioning.

Epistemic functioning was not significantly predicted by any of the three main transformation measures (i.e., self-reported recom-

Table 3
Correlation Matrix of Time 1 and Time 3 Functioning Variables and Predictors of Functioning

Scale	1	2	3	4	5	6	7	8	9	10
Time 1 functioning										
1. Intrapsychic	1.00									
2. Moral sociability	.57**	1.00								
3. Epistemic	.66**	.36**	1.00							
Time 3 functioning										
4. Intrapsychic	.39**	.17	.47**	1.00						
5. Moral sociability	.35*	.69**	.14	.44**	1.00					
6. Epistemic	.39**	.30*	.64**	.56**	.29	1.00				
Predictors of functioning										
7. Religious commitment change	.22	-.29	.13	.27	.06	.08	1.00			
8. Spiritual transcendence change	-.09	-.38*	.00	.13	.05	.11	.64**	1.00		
9. Recombitment at T2	.07	-.01	.06	.29	.02	.07	.10	.09	1.00	
10. Young life participation at T3	.20	.04	.29	.14	.05	.32*	.09	.13	.05	1.00

* *p* < .05. ** *p* < .01.

Table 4
Results from Nine Hierarchical Linear Regressions of Time 3 Functioning (Epistemic, Intrapsychic, or Moral Sociability) on the Functioning at Time 1 (Step 1), Young Life Participation (Step 2), and Spiritual Transformation (Step 3; Self-Reported Commitment, Religious Transformation, or Spiritual Transformation)

Predictor	Dependent variable: functioning at Time 3 (β)		
	Time 3 epistemic functioning	Time 3 intrapsychic functioning	Time 3 moral sociability functioning
Step 1			
Functioning variable at Time 1	.64**	.39*	.69**
R^2	.41	.15	.48
Step 2			
Young life participation	.25*	.20	-.01
ΔR^2	.06	.04	.00
Step 3a			
Self-reported recommitment	.02	.28*	.08
ΔR^2	.00	.08	.01
Step 3b			
Religious commitment change	.02	.24 [^]	.27*
ΔR^2	.00	.06	.07
Step 3c			
Spiritual transcendence change	.15	.25 [^]	.34**
ΔR^2	.02	.06	.10

Note. Step 3a, Step 3b, and Step 3c were added in three separate regressions.
[^] $p < .10$. * $p < .05$. ** $p < .01$.

mitment, religious commitment change, and spiritual transcendence change). Young Life participation, though, was a significant predictor of epistemic functioning; those adolescents with a higher participation rate in Young Life activities demonstrated an increase in life purpose.

Because we used change in religious commitment and change in spiritual transcendence as predictors of change in functioning variables, we cannot make definitive conclusions about the directionality of effects for regressions involving these change scores. However, we did run the regressions in the reversed direction whereby change scores for the functioning variables predicted Time 3 religious commitment or spiritual transcendence, controlling for religious commitment/spiritual transcendence at Time 1. In a regression predicting Time 3 religious commitment after controlling for Time 1 religious commitment and Young Life participation, change in moral sociability (i.e. Time 1 moral sociability subtracted from Time 3 moral sociability)—but not change in epistemic or intrapsychic functioning—was a significant predictor of an increase in religious commitment ($\beta = .31, p < .01$). Similarly, change in moral sociability—but not change in epistemic or intrapsychic functioning—was a significant predictor of Time 3 spiritual transcendence ($\beta = .32, p < .01$) after controlling for Time 1 spiritual transcendence and Young Life participation.

Discussion

Spiritual and religious transformation predicted positive change in moral sociability the year following camp and were marginally significant predictors of an increase in intrapsychic functioning. Self-reported recommitment to God at the end of summer camp predicted a significant increase in intrapsychic functioning. Moreover, all of these predictors were significant even after controlling for participation in Young Life activities. This indicates that the positive intrapsy-

chic and moral sociability effects of transformation in our sample were not simply the result of adolescent engagement in a youth-serving organization. Instead, it was the changes in the adolescents' spirituality and religiousness that led to growth.

In contrast, participation in Young Life was the only significant predictor of an increase in epistemic functioning from before camp to one year later. This would indicate that participation in a youth-serving organization, rather than religious transformation, spiritual transformation, or an altar-call recommitment to God, is what leads to an increased sense of purpose in life. Alternatively, it may be that adolescents who frequently attend Young Life have an increased sense of purpose in life because they experience a strong sense of belongingness and solidarity with a community replete in rich narratives related to life meaning. Thus, it may be that epistemic functioning increases as a result of participation in youth serving organizations *to the extent that those organizations provide meaningful life narratives*. Future studies directly comparing the effects of religious and nonreligious youth-serving organizations are needed to test this hypothesis and explore whether religious organizations are particularly suited to provide the narrative context necessary for the promotion of life purpose.

Taken all together, the study findings suggest that the primary effects of spiritual transformation and religious transformation are increased intrapsychic and moral sociability functioning rather than increased epistemic functioning, which relates only to Young Life involvement. These findings align with Leffel's (2011) conceptualization of moral sociability as the primary outcome of transformation. Mechanisms other than transformation, such as belonging to a religious community, most likely explain the positive effects of religion and spirituality on meaning and purpose in life.

Limitations

Although the present study greatly contributes to the literature by assessing the functions of religious transformation with pre- and posttransformation measurement, interpretation of the results must be tempered by several limiting factors. First, a high rate of attrition and the resulting lower sample size ($N = 45$) for longitudinal analyses is a weakness of the study. However, there were no differences on the study variables between participants who dropped out of the study compared to those who completed it, which makes the high attrition rate less problematic. Given the fact that no published studies have assessed the effects of religious and spiritual transformation with preconversion measurement, the low sample size is more acceptable given the preliminary state of the literature. In addition, the fact that analyses found significant hypothesized effects with low power is promising, and there were several marginally significant effects that would most likely reach significance with a higher N given their effect sizes.

Second, self-report biases are an issue in studies of transformation—even when pre- and posttransformation measurement is utilized. If people are highly invested in their new religious or spiritual identity, they may unconsciously (e.g., through cognitive dissonance principles) inflate the positive changes in their lives resulting from the transformation in self-report measures. Thus, future studies should utilize non-self-report measures of functioning (e.g., peer ratings of social and moral behaviors) to assess the effects of transformations.

Clear conclusions cannot be made concerning the directionality of effects for analyses that used change in religiousness or change in spirituality as measures of conversion. We ran our primary regression equations in the opposite direction (i.e., Time 3 spirituality or religiousness predicted by change in epistemic, intrapsychic, and moral sociability functioning) to test if the effects were reversible. Change in moral sociability was a significant predictor of an increase in spiritual transcendence and religious commitment, so we cannot make any definite inferences about the directionality of effects for moral sociability. However, there may be some support for the directionality of effects for intrapsychic functioning. In particular, religious commitment change and spiritual transcendence change were marginally significant predictors of increased intrapsychic functioning (see Table 4), but change in intrapsychic functioning was not a significant or marginally significant predictor of increased religious commitment or increased spiritual transcendence. It seems that change in spirituality and religion predicts an increase in psychological well-being, but an increase in psychological well-being does not predict change in religiousness or spirituality. Future studies should strive to measure transformation in such a manner that the directionality of effects may be further disentangled.

The extent to which findings are generalizable to other religious contexts is unknown. We documented the functions of religious transformation in adolescents attending evangelistic Christian summer camps, but we do not know if transformation functions in the same manner in other Christian traditions (e.g., Catholic, Mormon, Liberal Protestantism), other Christian social contexts (e.g., regular church meetings instead of summer camp), or different religions (e.g., Buddhism, Hinduism, Islam). Caution should be heeded in making overarching statements about the functions of religious and spiritual transformation. Researchers should collect

data on transformations in diverse contexts to identify general versus context-specific functions.

Measurement of Transformation and Conversion Motifs

Effects of transformation assessed as a self-reported recommitment to God were conspicuously divergent from effects of transformation assessed as change in religious commitment or change in spiritual transcendence. In fact, the incidence of a recommitment to God at camp was not significantly correlated with change in religious commitment or change in spiritual transcendence. These differences highlight the multifaceted nature of transformation as well as the need for researchers to develop better operational definitions of transformation. In the Methods section of this article, inherent limitations of both approaches to assessing transformation were discussed. These limitations, in concert with our divergent results, demonstrate the dire need for new transformation measures and refined operational definitions of transformation that can be used in longitudinal studies.

Nonetheless, the differences in findings for the two modes of measurement in the present study potentially reveal a pattern of results that builds upon Lofland and Skonovd's (1981) theory of conversion motifs. Motifs refer to the defining features of a transformation and account for the level of affective arousal, temporal duration, degree of social influence, and belief-participation sequence of events. In many ways, our measure of recommitment at camp signals a transformation that falls under the revivalistic motif, which denotes transformations that are highly emotional and influenced by social psychological processes of conformity and persuasion (Lofland & Skonovd, 1981). In contrast, our measures of religious and spiritual change may be assessing transformations akin to the other motifs, namely affectional conversions. Young Life's primary philosophy of ministry is that transformation should take place through the building of personal relationships. Thus, it is likely that a large quantity of Young Life transformations would be categorized as affectional, whereby the person comes to faith through the experience of being loved and affirmed by the members of a religious group (Lofland & Skonovd, 1981).

Given these different motifs corresponding to different measures, it may be that the effects of transformation on functioning depend on the motif of the conversion. Our data indicate that revivalistic transformations (recommitment to God) increase personal well-being (intrapsychic functioning) but fail to increase prosocial engagement and traits. In contrast, our measures of nonrevivalistic, affectional transformation predict increasing moral sociability but are less predictive of increasing personal well-being. Although we did not directly assess the motifs of conversions in our study, these findings point to the moderating effect of conversion motifs on the effects of spiritual and religious transformation.

Religious Social Engagement: A Moderator of Transformation

In the present study, Young Life participation was presented as a competing predictor of increases in functioning over time. However, participation in Young Life activities could also be conceptualized as a moderator of the relation between transformation and increased functioning. One extension Leffel (2011) makes in re-

gard to his moral sociability hypothesis is that religious transformation does not occur at only an individual or personal level. Instead, transformations occur in a social context, and transformations that lead to actual change in moral sociability require relational engagement in an ethical community that (a) provides role-models of moral sociability, (b) prescribes practices and spiritual disciplines that help to build character, and (c) affords a place for people to employ their developing virtues. Religious social engagement following transformation may be especially important for the development of moral sociability in adolescents, who are highly receptive to influence from peers and mentors.

Thus, we may expect increases in moral sociability, and perhaps intrapsychic or epistemic functioning, to the extent that adolescents are engaged in ethical communities such as Young Life following religious transformations they experience during camp or camp-like encounters. Although unable to test the hypothesis in the present study because of low power, it seems probable that engagement in a religious social community (i.e., participation in Young Life) would moderate the effects of religious and spiritual transformation on epistemic, intrapsychic, and moral sociability functioning, such that the largest increases in functioning are observed for those who have a transformation and are also engaged in the religious community. The quality and type of religious social engagement would also be important variables to consider.

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